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<110> Blumenfeld, M., et al.
<120> Nucleic Acids Encoding Human TBC-1 Protein And Polymorphic Markers
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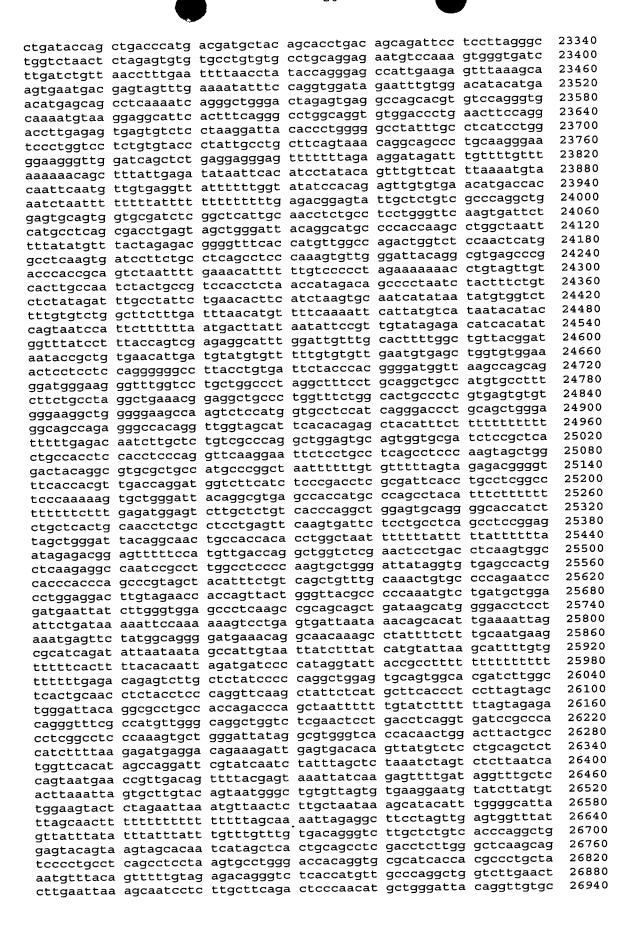
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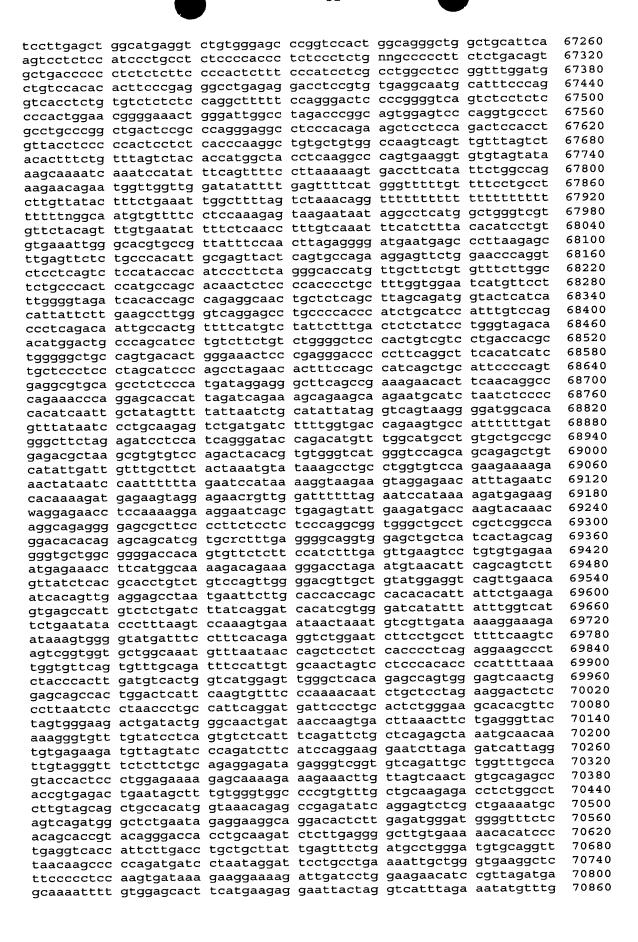
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Arg	д гух	3 GII	1 ASI	109		, пес	ı ne	a Gre	110	00	. 011			110)5	
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Ar	g Ile	e Glı	n Ser	: Lei	ı Glı	ı Ala	a Thi	r Ile	e Glu	ı Lys	: Le	ı Leı	ı Sei	r Sei	Glu	
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Le			n Thi	r Va	l Gl			u Ar	g Ar	g Arg	g Se: 11:	EO E Ala	a GI	u Pro	o Ser	
	11.	40	g cci	- ~~	- t-a	114		ם ככי	c ga	a dd			c qa	c tq	a	3677
ga Ag	o Are	g gay a Gl	g cci u Pro	o Gli	u Cv	s Th	r Gl	n Pr	o Gl	u Pro	o Th	r Gl	y As	p *		
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gaa cca ata aca f Glu Pro Ile Thr !	ttc aca gca ag Phe Thr Ala An	gg aaa cat o rg Lys His I 10	ctg ctt cct aac Leu Leu Pro Asn 15	gag gtc	226
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Ser Ile Arg Gln	Ala Gly Lys 1	Ile Ala Arg 155	GIN GIU GIU Lec	160	
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Cys (990	720	773 T	Thr	Val	Δla	His	Lvs	Lvs	Ala	Pro	Pro	Ala	Leu	Ile	
Cys (СТУ		vaı	TILL	vai	AIU	185	_, _				190				
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Asp (Glu	Cys	Ile	Glu	Lys		Asn	His	vaı	ser		ser	Arg	GIY	Ser	
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cgc	tcg	ctg	gcc	-ttt	agg	aag	gag	tau	cay	yac Aan	999	990	Len	Ara	Ser	
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Asp	Thr	Lys	Lys	Ile	Ala	Leu	GIu	Lys	Asn	Pne	гÀв	GIU	TIE	200	PIIC	
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Oru	501	340	1	1	1	- 4	345					350				
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Crra	Thr	Acn	Glu	212	T.e.11	Val	Asr	เดิโบ	Ile	Met	Met	Thr	Leu	Lys	Gln	
Cys			OIU	ALG		360					365			_		
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gcc	ttc	acg	gtg	gcc	gca	1 919	glag	, cay	mb~	712	Larg	פוע	Dro	Δla	Gln	
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Ile	G] 11	Glv	Met	Asn	Ser	Ser	Lys	Thr	Lys	Leu	Glu	Let	Gln	Lys	His	
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Tan	The	, aca • Th~	Lou	The	· Aar	n Glr	ייים ע וGli	ı Glr	ı Ala	Thr	Il€	. Phe	Glu	ı Ğlu	Val	
ьeu	1111			. 1111	. ASI		425					430	)			
		420			~-				g cga	gan	aat			att	att	1522
cag	aaa		aya	. n	ayo	. aal	, gay	, (21-	) y.c.	ייונטן	Acr	ווט ו	ו הין	Tle	Ile	
Gln			ı arg	Pro	Arg			ı GII	. Arg	J GIU	AAL ABI					
	435	5				44(					445			,	. ca+	1570
tct	ttt	ctg	, aga	tgt	: tta	a tai	ga	a gag	aaa -	cag	aaa -	gaa	. cac	. alc	cat	1370
Ser	Phe	e Lev	ı Arg	Суя	s Le	л Ту	r Gl	ı Glı	л ГА	Gln	Lys	s GI	ı Hıs	з тте	His	
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att	aac	ggac	atq	aac	g cag	g aca	a to	g cag	g ato	gca	gca	a gag	g aat	att	gga	1618
Ile	Glv	Glu	ı Met	: Lys	s Gli	n Th	r Se	r Glı	n Met	: Ala	Ala	a Glu	ı Ası	n Ile	Gly	
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Ser	יוט -	1 T.e.	ı Pro	Pro	s Se	r Al	a Th	r Arc	q Phe	e Arc	j Lei	ı Ası	o Met	: Lev	. Lys	
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CC D~	a cg	t ca	t ca	c cg	agg agl	ı gaa v Gli	ı accı ı Ile	rys	y aad o Lys	Pho	e Le	u Ala	a Gl	u Gli	a ttc n Phe		
FI	O AL	J	80					81	0 1				81	5			

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101	.0				101	.5				102	0				1025	2200
ata	aaa	ago	acg	cta	CCC	aac	ctt	ggc	ttg	gta	cag	ato	gaa	aag	acc	3298
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Gli	ı Val	. ga:	ı Tvi	His	· Va]	Leu	Glr	ı Glu	ı Ğlı	ı Leı	ı Ile	. Asp	Sei	s Sei	r Pro	
		100	50				106	55				107	70			
cto	aqt	. ga	e aac	caa	aga	ato	gat	aaa	a tta	a gag	g aaa	a acc	aac	ago	agc	3442
Let	ı Sei	r Asj) Ası	ı Glr	ı Arç	g Met	: Asr	Lys	s Lev	ı Glı	л Гуя	s Thi	c Ası	n Sei	Ser	
	10	75				108	30				108	35				2400
tta	a cgo	c aa	a cag	g aac	ctt	gad	cto	ctt	gaa	a cag	g tte	g cag	ggt	g gca	a aat	3490
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Cagactotgca ggagagattg caacaccatc ccacactgtc cagaccttaa ctgagagga cagagagacg ggaaagagacg ggaaagagagg ggaaagagga gtgaacagga ttgccagca gtgaattett acgaactcca acttgcaatt cagggggcat gtcccaagtt tttttttgtt gtttttagat actaaatcgt cccttctcca gtcctgatta ctgtacacaga aaaaaaaaaa	Ser A	Asp A	cgg Arg	gag Glu	cct Pro	Glu	Cys '	acg (Thr (cag (Gln)	ccc Pro	Glu	Pro	Thr	ggc Gly	gac Asp	tga *
cagaagaagc tygaagagag gaagaactca cattocaatc agtagaatctag tycccatty ttettetegt tettetagat actaaatctagaattca tettetagat actgaagatcatca cattocaatcag tycccatyte ttettettytt gtetttagat actaaatcg cccttotca gtcctgatta cttyaacaagatagatcatca cettyaacaagatagaaaaaa c210 > 5 c211 > 1168 c212 > PRT c213 > Homo sapiens c400 > 5 Met Glu Pro Ile Thr Phe Thr Ala Arg Lys His Leu Leu Pro Asn Glu 1 1 5 10 15 Val Ser Val Asp Phe Gly Leu Gln Leu Val Gly Ser Leu Pro Val His 20 20 25 30 Ser Leu Thr Thr Met Pro Met Leu Pro Trp Val Val Ala Glu Val Arg 45 45 Ats 48 Ats	caddi	tata	ca q	gaga	αatt			catc	cca	cact				aa c	tgag	aggga
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<pre><211> 5 <211> 1168 <212> PRT </pre> <pre><210> FRT <213> Homo sapiens</pre> <pre><400> 5 Met Glu Pro Ile Thr Phe Thr Ala Arg Lys His Leu Leu Pro Asn Glu 1</pre>			ga t	ggcg	tgga	c gt	gaat	aaat	gca	actt	atg	tttt	aaaa	aa a	aaaa	aaaaa
<pre><211> 1168 <212> PRT </pre> <pre><213> Homo sapiens </pre> <pre><400> 5 Met Glu Pro Ile Thr Phe Thr Ala Arg Lys His Leu Leu Pro Asn Glu 1</pre>	aaaa	aa														
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Ser Leu Thr Thr Met Pro Met Leu Pro Trp Val Val Ala Glu Val Arg Arg Leu Ser Arg Gln Ser Thr Arg Lys Glu Pro Val Thr Lys Gln Val Sor Sor Sor Sor Gly Leu Arg Cys Glu Pro Glu Pro Gly Glo Arg Leu Cys Val Sor Pro Ser Gly Leu Arg Cys Glu Pro Glu Pro Gly Glo Arg Ser Gln Gln Trp Asp Pro Leu Leu Try Ser Ser Leu Rag Pro Ser Glo Pro Ser Glo Pro Glo Glo Glo Glo Pro Glo Pro Glo Glo	Val	Ser	Val			Gly	Leu	Gln			Gly	Ser	Leu	Pro 30	Val	His
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50 Arg Leu Cys Val Ser Pro Ser Gly Leu Arg Cys Glu Pro Glu Pro Gly 80 65 70 75 80 Arg Ser Gln Gln Gln Trp 85 80 Pro Leu Ile Tyr Ser Ser Ile Phe Glu Cys 95 Lys Pro Gln Arg Val His Lys Leu Ile His Asn Ser His Asp Pro Ser 100 105 110 Tyr Phe Ala Cys Leu Ile Lys Glu Asp Ala Val His Arg Gln Ser Ile 115 120 Cys Tyr Val Phe Lys Ala Asp Asp Gln Thr Lys Val Pro Glu Ile Ile 133 135 Ser Ser Ile Arg Gln Ala Gly Lys Ile Ala Arg Gln Glu Glu Leu His 145 150 Cys Pro Ser Glu Phe Asp Asp Asp Thr Phe Ser Lys Lys Phe Glu Val Leu 165 175 Phe Cys Gly Arg Val Thr Val Ala His Lys Lys Lys Ala Pro Pro Ala Leu 180 180 Ile Asp Glu Cys Ile Glu Lys Phe Asn His Val Ser Gly Ser Arg Gly 200 205 Ser Glu Ser Pro Arg Pro Asn Pro Pro His Ala Ala Pro Thr Gly Ser 215 220 Gln Glu Pro Val Arg Arg Pro Met Arg Lys Ser Phe Ser Gln Pro Gly 225 230 Ser Ser Gly Phe Phe Ser Ser Phe Glu Leu Gln Asp Gly Gly Leu Arg 240 Leu Arg Ser Gly His Asn Ile Val Gln Pro Thr Asp Ile Glu Asn 275 Arg Thr Met Leu Phe Thr Ile Gly Gln Ser Glu Val Tyr Leu Ile Ser 290 Pro Asp Thr Lys Lys Ile Ala Leu Glu Lys Asn Phe Lys Glu Ile Ser 305 Pro Asp Thr Lys Lys Ile Ala Leu Glu Lys Asn Phe Lys Glu Ile Cys 315 Pro Asp Thr Lys Lys Ile Ala Leu	7	T	35	7 xa	Gln.	Ser	Thr		Lvg	Glu	Pro	Val		Lvs	Gln	Val
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Cys Tyr Val Phe Lys Ala Asp Asp Gln Thr Lys Val Pro Glu Ile Ile 130	-			100					105					110		
Cys Tyr Val Phe Lys Ala Asp Asp Gln Thr Lys Val Pro Glu Ile Ile Ser Ser Ile Arg Gln Ala Gly Lys Ile Ala Arg Gln Glu Leu His 155 160 Leu His 155 160 Leu His 155 160 160 Leu His 155 160 160 160 170 175 160 160 170 175 176 175 175 175 176 175 176 175 176 175 176 175 176 176 176 176 176 176 176	Tyr	Phe		Cys	Leu	Ile	Lys		Asp	Ala	Val	His	Arg 125	Gln	Ser	Ile
130	Cys	Tyr	Val	Phe	Lys	Ala	Asp		Gln	Thr	Lys	Val	Pro	Glu	Ile	Ile
145 150 155 160 Cys Pro Ser Glu Phe Asp Asp Thr Phe Ser Lys Lys Phe Glu Val Leu 165 165 170 175 1		130					135					140				
Cys Pro Ser Glu Phe Asp Asp Thr Phe Ser Lys Lys Phe Glu Val Leu 165		Ser	Ile	Arg	Gln		GIA	Lys	He	Ата	arg	Gin	GIU	GIU	ьeu	160
Phe Cys Gly Arg Val Thr Val Ala His Lys Lys Ala Pro Pro Ala Leu 180 185 190	145 Cvs	Pro	Ser	Glu	Phe		Asp	Thr	Phe	Ser		Lys	Phe	Glu	Val	
180	_				165					170					175	
The Asp Glu Cys The Glu Lys Phe Asn His Val Ser Gly Ser Arg Gly 195 200 205	Phe	Cys	Gly	Arg	Val	Thr	Val	Ala		Lys	Lys	Ala	Pro		Ala	Leu
Ser Glu Ser Pro Arg Pro Asn Pro Pro His Ala Ala Pro Thr Gly Ser 210 Gln Glu Pro Val Arg Arg Pro Met Arg Lys Ser Phe Ser Gln Pro Gly 225 Leu Arg Ser Leu Ala Phe Arg Lys Glu Leu Gln Asp Gly Gly Leu Arg 245 Ser Ser Gly Phe Phe Ser Ser Phe Glu Glu Ser Asp Ile Glu Asn His 260 Leu Ile Ser Gly His Asn Ile Val Gln Pro Thr Asp Ile Glu Glu Asn 275 Arg Thr Met Leu Phe Thr Ile Gly Gln Ser Glu Val Tyr Leu Ile Ser 290 Pro Asp Thr Lys Lys Ile Ala Leu Glu Lys Asn Phe Lys Glu Ile Ser 305 Phe Cys Ser Gln Gly Ile Arg His Val Asp His Phe Gly Phe Ile Cys 325 Ser Gln Gly Ile Arg His Val Asp His Phe Gly Phe Ile Cys 325	-1-	•	a 1	180	T1.	<i>α</i> 1	Tara	Dhe		иie	Val	Ser	Glv		Ara	Glv
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225	Gln	Glu	Pro	Val	Arg	Arg		Met	Arg	Lys	Ser			Gln	Pro	Gly
Ser Ser Gly Phe Phe Ser Ser Phe Glu Glu Ser Asp Ile Glu Asn His 260	225					230					235					240
Ser Ser Gly Phe Phe Ser Ser Phe Glu Glu Ser Asp Ile Glu Asn His Leu Ile Ser Gly His Asn Ile Val Gln Pro Thr Asp Ile Glu Glu Asn 285 Arg Thr Met Leu Phe Thr Ile Gly Glu Ser Glu Val Tyr Leu Ile Ser 290 295 300 300 300 300 320 320 320 320 320 335 3	Leu	Arg	Ser	Leu			Arg	Lys	Glu			Asp	GIY	GIY	Leu 255	Arg
Leu Ile Ser Gly His Asn Ile Val Gln Pro Thr Asp Ile Glu Glu Asn 275 Arg Thr Met Leu Phe Thr Ile Gly Gln Ser Glu Val Tyr Leu Ile Ser 290 Pro Asp Thr Lys Lys Ile Ala Leu Glu Lys Asn Phe Lys Glu Ile Ser 305 Phe Cys Ser Gln Gly Ile Arg His Val Asp His Phe Gly Phe Ile Cys 325 330 335	Ser	Ser	Gly		Phe	Ser	Ser	Phe			Ser	Asp	Ile	Glu 270	Asn	His
Arg Thr Met Leu Phe Thr Ile Gly Gln Ser Glu Val Tyr Leu Ile Ser 290 295 300 Pro Asp Thr Lys Lys Ile Ala Leu Glu Lys Asn Phe Lys Glu Ile Ser 305 310 315 320 Phe Cys Ser Gln Gly Ile Arg His Val Asp His Phe Gly Phe Ile Cys 325 330 335	Leu	Ile	Ser	Gly	His	Asn	Ile				Thr	Asp	Ile	Glu		Asn
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Arg I				Met 1	Asn				410						
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			g Le	u Ly:			76	()				, ,			u Lys
		l Th	r Th			77	5				/ (.			g Ser
705	Il	е Гу			79	n				/:	90				n Gly 800
Val	Pr			0.0	E				8	ΤU					
Phe	Hi	s Le	u Ly 82		s Gl	n Pl	ne Pr	0 S	er L	ys G	in G	ın Pı	ro Ly 83	s As	sp Val

Pro Tyr Lys Glu Leu Leu Lys Gln Leu Thr Ser Gln Gln His Ala Ile 845 840 835 Leu Ile Asp Leu Gly Arg Thr Phe Pro Thr His Pro Tyr Phe Ser Ala 855 Gln Leu Gly Ala Gly Gln Leu Ser Leu Tyr Asn Ile Leu Lys Ala Tyr 870 875 Ser Leu Leu Asp Gln Glu Val Gly Tyr Cys Gln Gly Leu Ser Phe Val 890 885 Ala Gly Ile Leu Leu His Met Ser Glu Glu Glu Ala Phe Lys Met 905 Leu Lys Phe Leu Met Phe Asp Met Gly Leu Arg Lys Gln Tyr Arg Pro 920 915 Asp Met Ile Ile Leu Gln Ile Gln Met Tyr Gln Leu Ser Arg Leu Leu 940 935 His Asp Tyr His Arg Asp Leu Tyr Asn His Leu Glu Glu His Glu Ile 955 950 Gly Pro Ser Leu Tyr Ala Ala Pro Trp Phe Leu Thr Met Phe Ala Ser 970 Gln Phe Pro Leu Gly Phe Val Ala Arg Val Phe Asp Met Ile Phe Leu 985 Gln Gly Thr Glu Val Ile Phe Lys Val Ala Leu Ser Leu Leu Gly Ser 1005 995 1000 His Lys Pro Leu Ile Leu Gln His Glu Asn Leu Glu Thr Ile Val Asp 1015 1020 1010 Phe Ile Lys Ser Thr Leu Pro Asn Leu Gly Leu Val Gln Met Glu Lys 1035 1030 Thr Ile Asn Gln Val Phe Glu Met Asp Ile Ala Lys Gln Leu Gln Ala 1050 1045 Tyr Glu Val Glu Tyr His Val Leu Gln Glu Glu Leu Ile Asp Ser Ser 1065 1070 1060 Pro Leu Ser Asp Asn Gln Arg Met Asp Lys Leu Glu Lys Thr Asn Ser 1085 1075 1080 Ser Leu Arg Lys Gln Asn Leu Asp Leu Leu Glu Gln Leu Gln Val Ala 1100 1095 Asn Gly Arg Ile Gln Ser Leu Glu Ala Thr Ile Glu Lys Leu Leu Ser 1110 1115 Ser Glu Ser Lys Leu Lys Gln Ala Met Leu Thr Leu Glu Leu Glu Arg 1130 1125 Ser Ala Leu Leu Gln Thr Val Glu Glu Leu Arg Arg Ser Ala Glu 1150 1145 1140 Pro Ser Asp Arg Glu Pro Glu Cys Thr Gln Pro Glu Pro Thr Gly Asp 1160 1165 <210> 6 <211> 18 <212> DNA <213> Artificial Sequence

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